

Atty. Docket No.: RMWR.P010

Patent 10/635,804

IN THE CLAIMS

Please amend the claims as indicated below:

Claim 1 (cancelled)

Claims 2-12 (previously cancelled)

Claims 13-25 (previously withdrawn)

Claims 26-36 (cancelled)

1 37. (amended) The method of claim 34, A system for directing roaming
2 network traffic, the system comprising:
3 a Home Public Mobile Network (HPLMN) that is a home network of a mobile
4 station;
5 a Visited Public Mobile Network (VPLMN) configured to communicate with the
6 HPLMN via a signaling network, wherein the mobile station is roaming when in the
7 VPLMN; and
8 a traffic redirection node comprising wherein the traffic redirection node
9 comprises high impedance probes on SS7 links between the HPLMN and the VPLMN,
10 and wherein the traffic redirection node is configured to monitor signaling between the
11 HPLMN and the VPLMN, including determining when the mobile station is roaming in
12 the VPLMN and whether the VPLMN is a preferred network, wherein if the VPLMN is
13 not a preferred network, the HPLMN sends a message to the mobile station to terminate a
14 current transaction between the VPLMN and the HPLMN, and wherein the traffic
15 redirection node is configured to passively monitor SS7 MAP signaling on the SS7 links.

1 38. (amended) The method of claim 34, wherein A system for directing
2 roaming network traffic, the system comprising:

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3 a Home Public Mobile Network (HPLMN) that is a home network of a mobile
4 station;
5 a Visited Public Mobile Network (VPLMN) configured to communicate with the
6 HPLMN via a signaling network, wherein the mobile station is roaming when in the
7 VPLMN; and
8 a traffic redirection node comprising wherein the traffic redirection node
9 comprises high impedance probes on SS7 links between the HPLMN and the VPLMN,
10 wherein the traffic redirection node is configured to monitor signaling between the
11 HPLMN and the VPLMN, including determining when the mobile station is roaming in
12 the VPLMN and whether the VPLMN is a preferred network, wherein if the VPLMN is
13 not a preferred network, the HPLMN sends a message to the mobile station to terminate a
14 current transaction between the VPLMN and the HPLMN, and wherein the traffic
15 redirection node is configured to actively monitor SS7 MAP signaling on the SS7 links,
16 wherein actively monitoring includes the traffic redirection node triggering messages to
17 the mobile station and modifying messages exchanged between the HPLMN and the
18 VPLMN.

1 Claims 39-49 (cancelled)

1 50. (new) The system of claim 37, wherein monitoring signaling between the
2 HPLMN and the VPLMN further includes determining when the mobile station initiates a
3 registration attempt with a non-preferred network.

1 51. (new) The system of claim 50, wherein initiating comprises the mobile
2 station sending a message to the HPLMN to update its location; and
3 sending a response to the mobile station indicating that the registration attempt is
4 terminated, wherein the response comprises an error message.

1 52. (new) The system of claim 51, wherein determining when a roaming
2 mobile station initiates a registration attempt with a non-preferred network comprises
3 reading a location update request from the mobile station.

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1 53. (new) The system of claim 52, wherein the error message comprises a
2 message that an update location transaction is aborted.

1 54. (new) The system of claim 50, wherein determining when a roaming
2 mobile station initiates a registration attempt with a non-preferred network comprises
3 reading an authentication request from a visited network.

1 55. (new) The system of claim 54, wherein the error message comprises a
2 message that a send authentication information transaction is aborted.

1 56. (new) The system of claim 50, wherein monitoring signaling between the
2 HPLMN and the VPLMN further includes:

3 determining when the mobile station initiates a subsequent registration attempt
4 with a subsequent network, wherein the traffic redirection node is further configured to,
5 determine if the subsequent network is a non-preferred network:
6 if the subsequent network is a non-preferred network, send the response to
7 the mobile station indicating that the registration attempt is terminated; and
8 if the subsequent network is determined to be a preferred network,
9 proceeding with the registration attempt, wherein the mobile station is not aware of which
10 networks are preferred and which networks are non-preferred.

1 57. (new) The system of claim 38, wherein monitoring signaling between the
2 HPLMN and the VPLMN further includes determining when the mobile station initiates a
3 registration attempt with a non-preferred network.

1 58. (new) The system of claim 57, wherein initiating comprises the mobile
2 station sending a message to the HPLMN to update its location; and
3 sending a response to the mobile station indicating that the registration attempt is
4 terminated, wherein the response comprises an error message.

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1 59. (new) The system of claim 58, wherein determining when a roaming
2 mobile station initiates a registration attempt with a non-preferred network comprises
3 reading a location update request from the mobile station.

1 60. (new) The system of claim 59, wherein the error message comprises a
2 message that an update location transaction is aborted.

1 61. (new) The system of claim 57, wherein determining when a roaming
2 mobile station initiates a registration attempt with a non-preferred network comprises
3 reading an authentication request from a visited network.

1 62. (new) The system of claim 61, wherein the error message comprises a
2 message that a send authentication information transaction is aborted.

1 63. (new) The system of claim 57, wherein monitoring signaling between the
2 HPLMN and the VPLMN further includes:
3 determining when the mobile station initiates a subsequent registration attempt
4 with a subsequent network, wherein the traffic redirection node is further configured to,
5 determine if the subsequent network is a non-preferred network;
6 if the subsequent network is a non-preferred network, send the response to
7 the mobile station indicating that the registration attempt is terminated; and
8 if the subsequent network is determined to be a preferred network,
9 proceeding with the registration attempt, wherein the mobile station is not aware of which
10 networks are preferred and which networks are non-preferred.